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Maine Highways, August 1932

Maine Highway Commission

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MAINE HIGHWAYS

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MAINE HIGHWAYS



Vol. I

Augusta, Maine, August 1932

No. 5

FEATURES

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Maine Highways is published each month under direction of the Maine State Highway Commission, State House, Augusta, Maine. Permission is granted to reprint any matter contained herein, if properly credited. Advertising rates furnished on request. Submitted material must be accompanied by adequate postage to insure return and all communications should be addressed to the Editor. This magazine is sent gratis to a limited list. Subscription rates, one dollar per annum; single copies, ten cents. Members of Maine State Highway Commission: Frank A. Peabody, Edward E. Farnsworth, Willis E. Swift.

B. MORTON HAVEY, *Editor.*

Participating In Dedication Exercises, Cadillac Mountain Road



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*First Assistant Secretary of the
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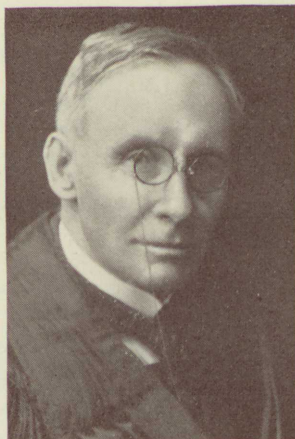
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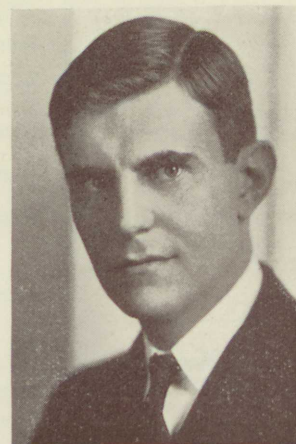
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MOTHER NATURE doesn't care whether you drive a Rolls Royce or a Ford.

Mother Nature doesn't discriminate between the man who is rated AA-1 in Bradstreet's and the man who is carrying in his pocket an unpaid bill for last winter's coal.

Mother Nature, because she is the world's greatest mother, has provided, for the enjoyment of all and at no expense, places to go where there is peace and exaltation of soul, rest of mind, health of body.

Along Maine's highways your car may lift you over the brow of a hill, or perhaps dip into a valley, revealing scenery as beautiful and inspiring as celestial song. You may park in shady forests, in flowered fields, on surf-drenched shores, drinking deeply of tonic-like air, enjoying mental and physical rejuvenation.

Go vagabonding. Drive anywhere. Look. Breathe. Listen. Scenic wonders, clean winds, bird-world symphonies may be enjoyed at hundreds of places throughout the State. Mother Nature doesn't require you to buy any tickets or give any tips. Prince or pauper, Mother Nature welcomes you to know the delights she offers and to which all Maine highways lead.

—Victor B. Klefbeck, *Publicity Director,*
Maine Development Commission.

Cadillac Mountain Road Offers Top o' the World View of Acadia National Park Beauties

By GRACE M. OAKES

Secretary to the Superintendent, Acadia National Park



A CADIA NATIONAL PARK, on Mount Desert Island, off the coast of Maine, the only seaboard park, has the unique distinction of being the only park whose lands run down to meet the sea, the distinction of being the only park whose lands have been acquired through the gift of the people, a gift for the enjoyment of the public. Its name goes back to the days when Sieur de Monts, commissioned by Henry IV, in noble words, to colonize and Christianize "the lands and territory of Acadia" while establishing the colony at St. Croix, sent Champlain, the noted French mariner, westward in an open, lateen-sailed boat. Champlain sailed into the harbor off the Island on September 4, 1604, and named the superb, ocean-fronting heights of granite *l'Isle des Monts deserts*.

And on July 23, of the present year, when the motor road is dedicated with ceremonies at the top of Cadillac (Green) Mountain, 244 years to a day will have passed since that July 23 of 1688, when a deed was recorded at Quebec by which that Province, the seat then of the French Government in America, granted Antoine de la Mothe Cadillac, a gentleman of Acadia of noble family in France, the Island of Mount Desert.

Acadia National Park on Mount Desert Island—the name, to most people who have visited it, conjures up the vision of the striking masses of granite mountains. The formation is that of glacial erosion. Cadillac rises as a solid block to broad-topped elevation 1528 feet above the ocean level, and descends, surf-swept, beneath it.

Territory off the Island

But Acadia National Park, linked in thought and history of Mount Desert Island, has territory off the Island. Across Frenchman's Bay, like a twin sentinel to Champlain Mountain, rises the height of Schoodic, the Park's only mainland acquisition thus far. And again, island territory within island territory, is beautiful Pryor's Island, in Somes Sound, which is the fiord dividing the Island almost in half, and this beautiful little island was a gift and is a proud possession.

When Congress gave the Sieur de Monts National Monument its first appropriation, the Appropriations Committee coupled with it the statement that the tract was by nature a national park area. A bill to make it so was introduced accordingly by Senator Hale of Maine, which duly passed and was signed by President

Wilson on his first return from France, February 26, 1919.

Ten years later, when another bill was introduced by Hon. John E. Nelson of Maine, representative from the Park's district, giving the Secretary of the Interior powers for the enlargement of the Park beyond the limits of Mount Desert Island, it seemed wise to take for it, instead of the first name, Lafayette, one with which in the long history that lay behind it was so closely bound, Acadia.

A Remarkable Tract

Acadia National Park is a remarkable tract, for in it mountains come down to meet the sea, their bases

islands; and all the sea within the three mile limit, from headland to headland, is a national possession for the Park to utilize.

Acadia National Park offers to the tourist all the pleasures for which Maine, long ago in oldfashioned term called "the playground of the nation" is famous.

The visitor to the Park, bent on the joys of a summer holiday may wander through the forest shades over beautifully built paths, which yet have all kinship with the forests, and which are an inheritance, being built there upon the land before it became a Park possession. He may fish in the deep and beautiful waters of the many lakes. He may go deepsea fishing in the Acadia, a Jordan Benson boat. He may sail or canoe, play tennis



Pencil sketch emphasizing Maine's new scenic highway, the Cadillac Mountain Road, in Acadia National Park. The Rockefeller road is shown crossing the lower slopes and leading on to Jordan Pond. A part of the shore of Eagle Lake appears in the right foreground, while beyond the mountain tops stretches the broad Atlantic.

swathed in its waters.) In Acadia National Park the boreal forest, extending northward to the Arctic Circle, meets the southern flora as it ranges northward. The rocks are among the most ancient in the world for the Alps and Himalayas are young compared with them, as mountain uplifts, and human history passes into nothingness in the presence of the vast antiquity of which they tell.

But it is the ocean itself which is the Park's unique possession. To those who love the sea, nothing can replace it. The coast is what physical geographers call a "drowned" one, an old land surface flooded by the sea through downward coastal warping, its old stream valleys changed to bays and tidal reaches, its hilltops into

or golf, or seek solitude upon the mountain tops. He may avail himself of the magnificent system of horse-roads, from which motor traffic is excluded, a system running in and out of the Park, ascending to magnificent heights, dropping low by this or that silver-music water of brook or lake or pond, crossing this gorge or that brook-bed by beautiful bridges, costly yet simple, merging with the landscape.

Coming for a longer stay the visitor to Acadia National Park has his choice of a wide variety of summer places of living. He may go to the Park campground, there to have fuel, light, water and sanitary provision and parking space furnished together with a camp site, telephone and mail opportunities and the like, a short

distance from town. He may go to the finest hotel, or find some quiet cottage in which to live while here.

Four Resorts Border Park

There are four resorts at the Park's boundaries, Seal Harbor, with the magnificent estates of Rockefeller and of Ford furnishing interest to all; Northeast Harbor, with its beautiful homes, hotels and cottages, its golf links, harbor, its many beauties of sea and shore; Southwest Harbor, with its many interests, its opportunities of all types, recreationally, and Somesville, with its lovely old world quiet and beauty.



Congressman John E. Nelson

The town of Bar Harbor is rich in historic tradition. At the Brick House, upon the rocky shore, with a magnificent view of the sea at Hulls Cove, the dwelling is upon the site of the farmhouse of a family by the name of Hull, cousin of the famous commander of the U. S. S. Constitution. Now the house, publicly conducted, is visited and praised by many visitors.

Associated with George B. Dorr, founder and superintendent, of a very old Boston family, among the first estate owners upon the Island, in his first great work for the conservation of Mount Desert and its beauties, were Dr. Robert Abbe, of New York and Bar Harbor, and President Eliot of Harvard.

Among recent gifts to the Park is the beautiful old homestead of an old Boston family and this, a Park possession, retains the name, Homans House. Remodelled in old colonial type, the house, magnificently set in beauty upon the shore, commands a sweep of sky and sea and forest, of landscape and of shore, which is unsurpassed.

The Ocean Drive

The Ocean Drive, long and long ago, and ever since the pride of Bar Harbor, as a resort, was purchased by John D. Rockefeller, Jr., last year and given to the Park. Time has never dulled that pride. The resident of a half century directs the visitor to the Sand Beach, to Thunder Hole and to the specially lovely points of vantage with just as much enthusiasm as does the person who, seeing it for the first time, points out its many attractions and

compares in glowing terms this road with the Bluffs Drive leading to Hulls Cove.

Recreational perfection is matched by the great interest which the Park has always had for those in various professions. Artists, photographers and writers have come here for inspiration, never failing them. The Park's educational program is well underway. Geology, biology, the study of plants and animals, all are participated in by men famous in their line. Dr. Douglas Johnson, world famous geologist, came here for material for one of his books, and men eminent in every line of science, one may say, are at the Mount Desert Island Biological Laboratory at Salisbury Cove, work which, in many ways is linked up with the Park.

Down at Sieur de Monts Spring, the Bar Harbor Gateway to the Park, with water which compares with the famous Poland, in depth and coldness and swift running, one finds, in addition to maps by the famous Dr. Abbe, a Museum which stands in his memory—memory of the years he devoted to its founding. And here Walter B. Smith of Bangor, curator of the Museum, can show a remarkable collection of Indian relics, Stone Age antiquity perhaps best describing the Museum's first inception. For this project Dr. Abbe had the assistance in years, just prior to his death, of Dr. Warren K. Moorehead, the famous American archaeologist.

Over at Southwest Harbor is another beautiful Park possession which brings back, with vivid portrayal, its richly storied background, Jesuit Field, where the first French mission was established.

Finest of Highways

The Park's highways are superb examples of the art of road building. The first was that surveyed in 1921, crossing the flank of Cadillac above Eagle Lake, by Bubble Pond and thence to Jordan Pond, a beautiful highway, the gift of John D. Rockefeller, Jr. From that road, branching off about a mile in from the county road, is the Cadillac Mountain summit road, built by the Government, under appropriation, by the Federal Bureau of Public Roads. This road sweeps up to the highest point on the Atlantic coast.

And so, rich in history and tradition, and supremely rich in the opportunities it offers to the people, for recreation or for study, Acadia National Park holds an enviable position, different from those of the great parks of the system in the west, yet a position worthy of the great work done for its founding, a noble achievement of conservation.

Some motorists seem to think warning signs at railway crossings are intended for the locomotive engineer.

—Studebaker Wheel.

*present road
35 miles
it is 3.46 miles in length*

ACADIA--

A Boyhood Dream Come True

Dedication of Cadillac Mountain
Road Completes Fulfilment of George
Bucknam Dorr's Life-long Mission—
Devoted to Preservation of Mount
Desert's Primitive Beauties.

By B. MORTON HAVEY

THE history of a nation was changing. A chapter of war was passing into the shadow.

But the ogre of reconstruction—with its trials and diversities—beckoned its unfortunates to come; to pass over the grill of turbulence, which is the aftermath of strife between countries and peoples.

Is it to be wondered that at such a time in the affairs of our United States a quiet isle off the coast of our own State of Maine should, in its very solemnity and peace, carry impressiveness and inspiration?

Is it to be wondered that this bit of land—*l'Isle des Monts deserts*—its mountains silent in primeval sleep, should summon anew thought of centuries past: Black-robed priests in romantic guise, steeped in learning, paled from monastery vigilance, passing in the night among plumed helmets cast aside by weary men, whose fondest hope, whether lord or vassal, could be to give their lives for France.

Let us slip back a moment, across the years, into those days of drab, bleak reconstruction.

In youth, then, we leave other quarters of the country—leave riots, dishonesty, horrors and gruesome scenes—to come to peaceful Mount Desert.

The story of its sleepy mountains, reaching their slopes into the restless ocean, adorning their tops with characteristic pines and hemlocks, picturing, in themselves all that is strong and beautiful in Nature, has

long since been passed down to us by parents and grand-parents.

Our first picture of Mount Desert, in truth, is all that had been visioned—and more!

Our first inspiration—and it is still in the years of youth, you will remember—is to lend the hand of man to the great task of conserving all the fine things before us, passing them down to posterity for posterity's sake alone.

It is the work of a life-time!

Are we decided?

Can we devote our life, mind and body, to this vast undertaking? Can we educate ourselves for this single purpose? With this single objective in view? Can we make an actuality of this wish of our forebears?

It is an inborn expression of the soul—as determined, as self-sacrificing, as religiously conceived, devoid of all ego, as is the thought of those black-robed men of years ago, casting about in the forests, in priestly vestment, by

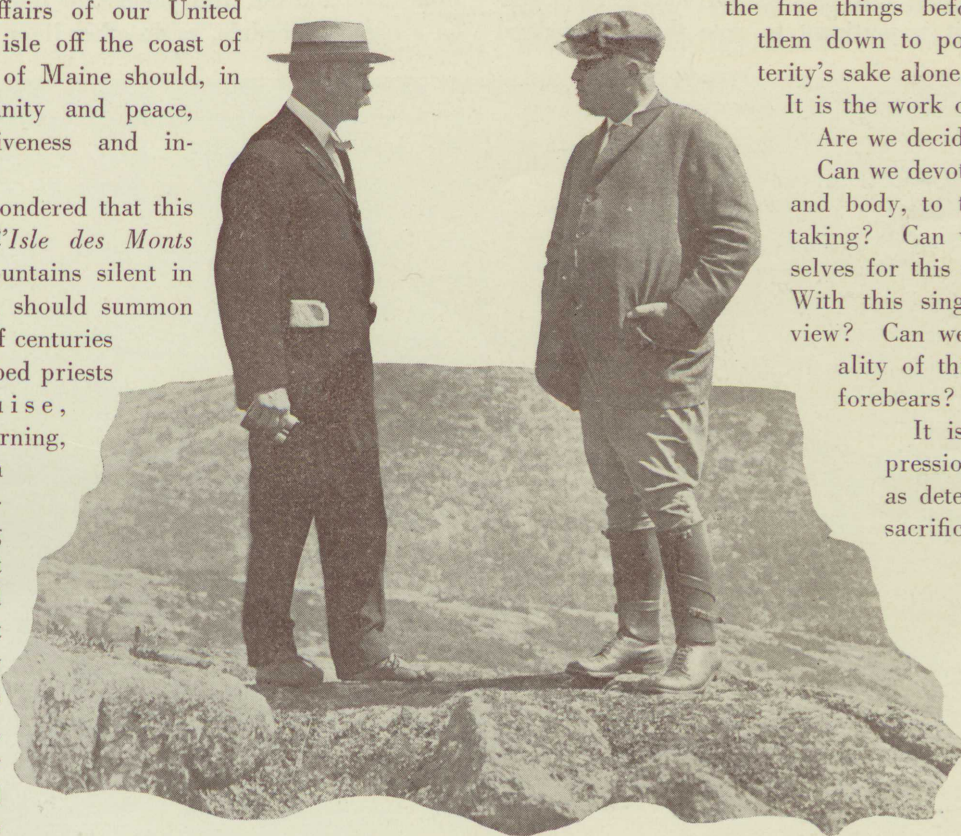
the flickering lights of their ghostly camp fires!

We are resolved!

George Bucknam Dorr

To try and visualize the work and the inspiration of George Bucknam Dorr is difficult. A man now well beyond his three score and ten years, Mr. Dorr talks but little of himself; if you would see his life's work—for

(Continued on page 29)



Mr. Dorr and Franklin K. Lane, former Secretary of The Interior, photographed at summit of Cadillac Mountain when the new road was being planned.

Road Building Progress Illustrated in Building of New Scenic Highway

By Wm. A. GROVER, Division Engineer
New Hampshire State Highway Department

(This article by Mr. Grover, reprinted from an issue of the New Hampshire Highways, concerns the Lafayette Road in New Hampshire. However, his description of the penolithic penetration process used in the construction of that highway may prove of unusual interest to Maine readers, at this time, inasmuch as the process in mention was used in the construction of Maine's new scenic highway, the Cadillac Mountain Road, in Acadia National Park.—Editor)

DURING the season of 1930, a considerable amount of work was done on the Lafayette Road, which is on U. S. 1. At the risk of stating facts generally known, it is pertinent to note that this federal

record of over 46,000 cars. In the Spring of 1929, a comparative count at these two locate stations was made for the purpose of securing a ratio, and by applying this ratio it is safe to state that the peak traffic on the Lafayette Road is over 20,000 vehicles in 24 hours. The Boston and Maine Transportation Company, The Royal Blue Line, and the Greyhound Line operate their busses on a regular schedule, as do other lines, and the freight



COURTESY OF WARREN BROTHERS

On Cadillac's new automobile road, overlooking the village of Bar Harbor and showing the Porcupine Islands

route extends from Fort Kent on the Canadian border to Miami, Florida, and is New Hampshire's heaviest travelled road.

While no very accurate data is available at any station of the road itself, the State of Maine kept an accurate count of the peak traffic over the Memorial Bridge, between Portsmouth and Kittery, Me., which is on the same route, for forty-eight continuous hours and obtained a

truck item is considerable, so that a heavy-duty road is demanded and adequacy calls for a width in excess of that of lesser travelled roads.

The Commonwealth of Massachusetts on the south, and the State of Maine on the north, had already recognized this feature and it has been the aim of New Hamp-

(Continued on page 18)



The HIGHWAY PROGRAM

by
Lucius D Barrows
CHIEF ENGINEER



MR. BARROWS

Highways of the State are classified into three general classes, State Highways, State aid highways, and Third class highways. The law refers in general to third class highways as all highways not included in the first two classes. From this general classification of third class highways, municipal officers of each town may recommend to the State Highway Commission one definitely described third class highway for construction and the Commission may designate this road as a third class highway. This means that this particular third class highway, after being designated as such by the Commission, may be improved from apportionments from the State's third class highway fund. After a third class highway has been completed a second road may be so designated.

The first provision for the participation of the State in the improvement of third class highways was passed at the Special Session of the Legislature in 1919, and the first roads under this act were built in 1920.

This act provided that one-third of the mill tax highway fund should be set aside for the construction and maintenance of second and third class highways. Under this first act a town was entitled to an apportionment from this fund in any year if it appropriated, in addition to the appropriations for state aid road construction and bridge construction under the general bridge act, an amount not less than the average of appropriations by the town for ways and bridges for the five years immediately preceding the year of application, providing this five year average be not less than four mills on the valuation of the town, and also providing that the tax rate for town roads and bridges for the year of application be not less than four mills.

To towns, having a tax rate of four mills for roads and bridges, apportionments from the third class highway fund were made at the rate of ten dollars per mile for each mile of wrought highway, and this rate of apportionment was increased one dollar per mile for each mill increase in the tax rate. For instance, a town, complying with the conditions, and having a tax rate of five mills for town roads and bridges, and 100 miles of highway, would be apportioned at the rate of \$11.00 per mile or \$1100.00.

As this law permitted the use of third class highway funds on state aid roads, a large number of towns pre-

ferred to expend third class highway apportionments in connection with state aid road joint funds.

The law as first enacted provided that towns should maintain the roads constructed from this fund, but with the provision that a sum not to exceed 25 per cent of any year's apportionment could be used for maintenance.

Amendments have been made from time to time since the law was first enacted, and the conditions now in force are somewhat different from those as above outlined for the original law.

The law now provides that from the General Highway Fund the sum of \$700,000 shall be set aside annually for the improvement of third class highways. Apportionments from this fund are now made to towns according to the number of miles of third class highway in each town as generally classified, that is to say, each town, entitled to an apportionment, shares in the total fund available in the ratio that its total third class highway mileage bears to the total third class mileage of all towns entitled to apportionments.

As in the original law, there are certain conditions which must be fulfilled.

In order to be entitled to an apportionment in any year, a town must have appropriated, in addition to any appropriations for state aid road construction and bridge construction under the bridge act, an amount not less than four mills on the valuation of the town for roads and bridges, summer and winter. It is further provided that towns, on or before April 15 in any year, must make such returns to the State Highway Commission as shall be required. These returns consist of a statement of all the appropriations made by the town for all road and bridge work and a formal application for an apportionment from the third class highway fund.

Another requirement is that towns shall have, prior to November 1 in the year next preceding, cut and remove all trees, shrubs and useless fruit trees, bushes and weeds, except shade trees, cared for fruit trees, and ornamental shrubs, growing between the road limits and the wrought part of any improved section of State highway, State aid highway, and third class highway locations. It is also further provided that the towns must annually raise for maintaining the improved sections of third class highways, a sum not less than 5 per cent of the total expenditures for constructing these highways made during and after the year 1927. In case such maintenance appropriation is more than is required for satisfactory

(Continued on page 25)

— An — Allagash Adventure



By FREDERICK ROBIE
Member Governor's Council

Where The Gurgle Of Dipping
Paddles, the Cry of Loons, the
Splash of Leaping Trout, and the
Whispering of Swaying Trees
Blend in Nature's Symphonic Song
Of Welcome.

(The first part of Mr. Robie's interesting account of his trip "up the Allagash", with his friend Mr. John A. "Squire" Waterman, and their two guides, Henry Taylor and Jim Gardner, appeared in the July number of MAINE HIGHWAYS. The party went after fish and fun and found plenty of both, together with a generous supply of thrills when introduced to brook fishing "as she is done in the north countree". The concluding part of the article follows. —Editor.)

That first thrill was the greatest of them all. From then on, it was just plain slaughter. We could have taken a bushel of trout from that one bend in the brook without moving out of our tracks.

Talk about flies! Ninety per cent bunk! When trout are really taking flies, they will rise to most anything, even a piece from the tail of an old shirt.

After the first day, we took turns fishing this brook. We planned to keep enough fish ahead for one meal. The guides preferred them a few hours old so they would not curl in the pan while frying. Toward the last of the week, we questioned as to whose turn it was to catch the trout for the next meal with the same feeling as when as boys my brother and I would dispute as to whose turn it was to bring in the wood.

"It's your turn to catch the trout tonight, Waterman."

"Yes? All right, if you say so; how many and what size?"

"Make it little ones, fryers—"

"And about forty of them," broke in Henry, "if you want any left over for breakfast."

"Yes," I added, "and I'll give you just twenty minutes in which to catch them."

The "Squire" failed. He landed but thirty-eight fish in the time allotted.

The practice was to go up stream and catch the small ones to fry and then drop down to the mouth of the brook and see how large a one we could catch to bake. I put back more really big trout than I had ever caught before in my entire life. Waterman took the prize of the trip, a beauty that nearly covered the blade of a canoe paddle. I wrecked two perfectly good fly rods on his playmates at the mouth of Sweeney Brook.

In Deep Water

On our way in, we had heard rumors about there being some very large togue in this lake. We spent the

better part of two days sounding for deep water, and found nothing over twenty-five feet in the lower five miles of the lake. Just before dark of the second day we began to find deeper water, and soon dropped over a bank where we could not reach bottom with our seventy-five foot sounding line. Drifting about here for a few minutes we picked up a nineteen inch togue that would weigh between five and six pounds. We used a hand line baited with the belly fin from a trout. The togue were there.

The following morning we started for the head of the lake for a full day's fishing. Waterman and Henry with the cooking utensils in their canoe, went up one side of the lake. A Maine guide never eats a cold lunch. When it comes meal time he "biles the kittle." Jim and I with the grub in our possession went up the west shore. It was blowing hard and by the time we reached the head of the lake, it was piling up so it was dangerous to cross, so at noon Jim started a fire and cooked lunch.

At mid-afternoon the white caps were still running as we started down the lee shore for camp. "You know," Jim said, "Henry is going to blame me for this whole affair."

"Oh, I don't believe so," I replied, "it wasn't your fault that the wind blew."

"I know it; but haven't you noticed of late that I'm to blame for everything that goes wrong? Biscuits burn. Jim got too hot a fire. Fish don't brown. Jim didn't get good wood. Beds get hard. Jim didn't get enough good boughs. It's Jim this, and Jim that; but when he starts in on me tonight everything he blames me for I'm going to tell him you told me to do it. He won't dare to say anything to you."

I assured Jim that this arrangement would be OK with me, and he was as good as his word.

We paddled into camp shortly before sundown. Henry came dragging in about an hour later. He was as black as a thunder cloud and as hungry as a wolf. The first words out of him were, "What you leave me for, Jim?"

(Continued on page 20)

BRIDGE DEPARTMENT ^{by} Max L. Wilder

BRIDGE ENGINEER

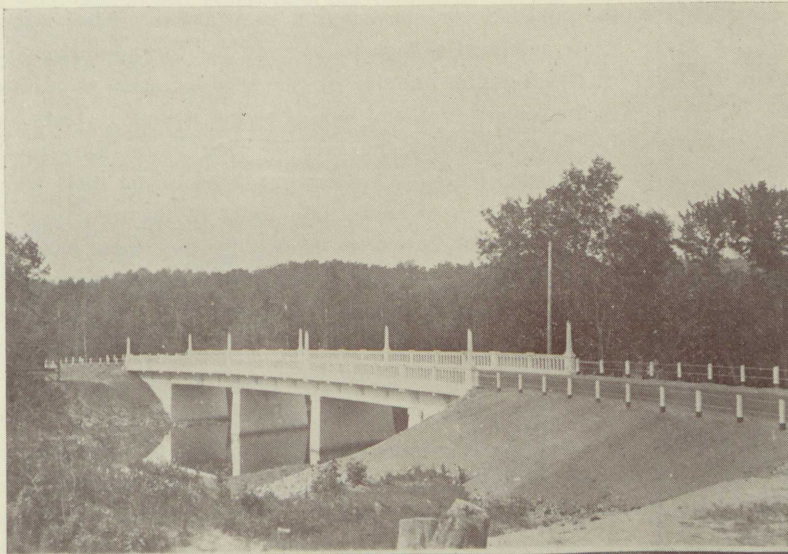


DIFFERENT conditions require different types of bridges. This is illustrated by three important bridges, included in the 1931 construction program, and completed for traffic in the first part of 1932. They are the Wiscasset-Edgcomb Bridge over the Sheepscot River on Route 1, the Brunswick-Topsham Bridge over the Androscoggin River on Route 201, and Oakdale Bridge over Little Androscoggin River in Auburn on Route 100.

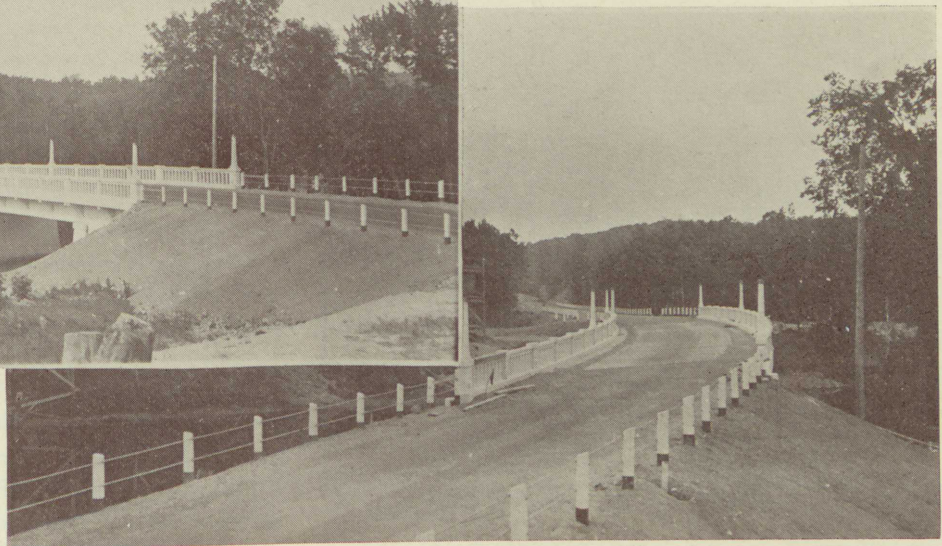
The Sheepscot River at the point crossed by the Atlantic Highway, is very wide, over 3,200 feet between shore lines. The river bed is soft, and a high type of construction is out of the question, from a financial point of view. Creosoted timber piles were therefore, selected

was made 22 feet, this being considered the minimum safe width of bridge for fast traffic.

The river bed of the Androscoggin River at Brunswick is ledge and the matter of load is of small importance. The new location of highway, however, crosses two wings of a dam. The direction and speed of currents and the depth of water indicated that the number of piers should be kept at a minimum and practically set the span lengths at 310 feet each for the two spans over the main portion of the river. The northerly span is shorter, 175 feet in length. Steel truss spans were used with concrete floor. An electric railway crosses the bridge, making necessary a roadway width of 30 feet for the electric car and two lanes of highway



*Above: Oakdale Bridge,
Auburn*



*Below: View showing new alignment
at Oakdale Bridge*

for the substructure, and by loading test piles, it was found that each pile would safely carry 6 tons, without danger of continued settlement. The piling are of various lengths, the largest 100 feet, and the majority over 75 feet. The economical floor had to be of light weight. By making the span lengths 26 feet, and by use of steel stringers with creosoted timber laminated flooring and asphalt plank wearing surface, the pile load could be held at the safe amount. The roadway width

traffic. In order that the third lane could be of the most use for passing slow automobiles and trucks when no electric cars are on the bridge, the track was placed in the center, as it is contrary to human nature to drive on a car track at the side of a street or bridge, unless compelled to.

In choosing a new alignment at Oakdale in Auburn, it was apparent that if sharp curves were to be avoided

(Continued on page 24)

Your Uncle Sam Helps



By R. M. PAGE, Office Engineer,
Maine State Highway Commission

How Federal Aid in State
Road Building Was Origin-
ated--Benefits Distributed
Over Wide Area

AS many people do not understand the method of distributing Federal aid for highway construction to the States, a brief description of the operation of the law may be of interest. The principle of Federal aid for transportation was formulated in the early days of the Republic when aid was given in the construction of highways and canals. At a later date, aid was given

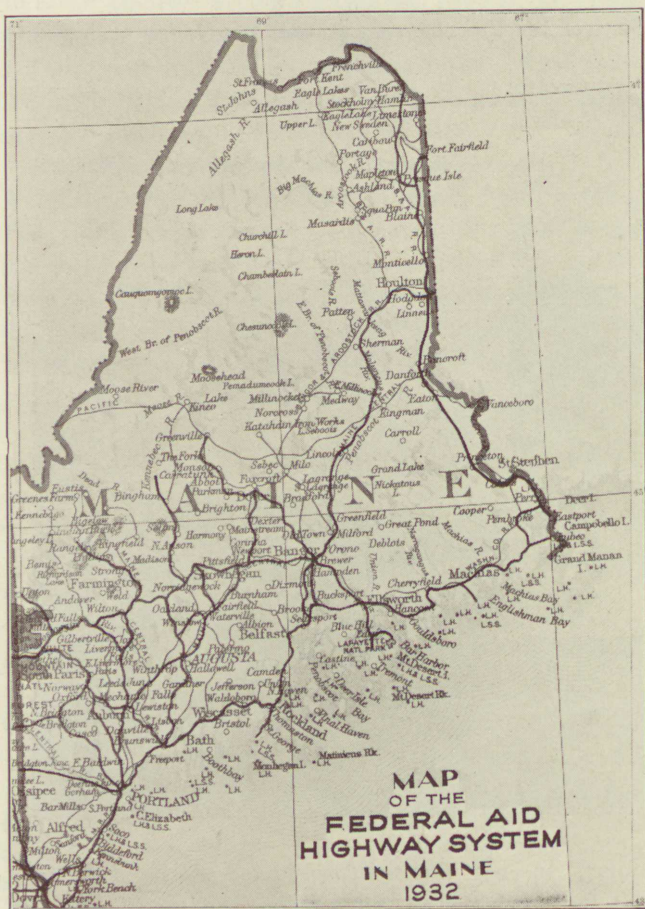
of the bituminous macadam road between Portland and Brunswick in 1914 and 1915.

In 1916, Congress passed the Act, which, with amendments, is the statute under which the present Federal Aid is given to the States. This Federal aid is not an outright contribution which can be used as the States desire but is a partial reimbursement for expenditures made by the States on projects approved by the Federal Bureau of Public Roads. In order to obtain Federal aid, the approval of these projects must be received before the contract for construction is awarded. After setting aside sufficient money to provide for the administration of the Act, the balance of the appropriation is allotted to the several States in the following manner: One-third in the ratio which the area of each State bears to the total area of all the States; one-third in the ratio which the population of each State bears to the total population of all the States, as shown by the latest available Federal census, and one-third in the ratio which the mileage of rural delivery routes and star routes in each State bears to the total mileage of rural delivery routes and star routes in all the States.

At the present time, the Federal Government will participate on these projects to the extent of fifty per cent of the actual cost of construction but not to exceed fifteen thousand dollars per mile, exclusive of allotment for bridges of over twenty feet span. On such bridges the United States will contribute up to fifty per cent. The United States will not participate in the preparation of preliminary surveys, plans and estimates, although they require that detailed plans in accordance with their specifications be submitted prior to their acceptance of a project. Neither will they participate in the cost of acquiring any right of way or other damage to property nor in any expenditures for drainage ditches or other construction necessary off the right of way.

In 1921, Congress passed an Act requiring each State to designate a system of highways not to exceed seven per cent of the total highway mileage of such State and required that all Federal aid apportionments should be expended upon this system. In accordance with this Act, the State Highway Commission filed a plan which

(Continued on page 31)



Heavy black lines on the interior of the map show Federal aid roads.

to railroads both by means of direct contributions of money and by land grants. Prior to the enactment of the present law, the Federal Government aided the States in the construction of certain highways as experimental or educational projects. It was in this way that the State of Maine received Federal aid in the construction

MONTHLY TOURS OF THE STATE

by VICO C. ISOLA

EXECUTIVE SECRETARY
MAINE DEVELOPMENT COMMISSION



EASTWARD HO!

TO MT. DESERT



MR. ISOLA

Alarm clocks and telephones. Two inventions of this hurry-up age that are of the greatest convenience and—the curse of the nation. I say that because they so often ring at the same time. If you take time to shut off the former maybe a good customer has hung up. And if you let the alarm ring and answer the latter you probably wake up the baby and we all know what that means. My alarm rang this morning telling me it was past time to start the August tour for Maine Highways and while I was trying to shut it off the telephone rang. When I answered it I got a, “Hey, where’s that August tour?” So I’m in favor of chucking both the alarm clock and the telephone out of the window.

But here goes for the tour and what a tour it is going to be this month, with a start at Bangor, that beautiful elm shaded gate way of northern and eastern Maine, we cross the Penobscot River into Brewer on Federal highway number 1. By Phillips Lake, nestled like a jewel amongst the hills, and Lucerne-In-Maine to Ellsworth, 26 miles away. Ellsworth, the shire town of Hancock County, possesses much of charm and interest for the tourist. One should not fail to visit the Black House and see the priceless antiques which were in the possession of Col. John Black since the beginning of the 19th century. Many of these antiques are relics of George Washington’s time. From Ellsworth we roll along on a beautiful cement road toward Mount Desert Island, Bar Harbor and Acadia National Park. Of Mount Desert, J. T. Trowbridge has said,

Panoplied with crags and trees,
And begirt
By blue islands in soft seas,
Which invert
Idle yachts on glassy bays—
Who shall paint you in a phrase,
Mount Desert?

The beauties and splendors of the Park and the wonderful island on which it is situated is evidenced by the fact that it was the first selection of a National Park established by the United States east of the Mississippi River and the only National Park located on tide water. Through the gifts of John D. Rockefeller, Jr., roads have been built through portions of the Park and now, on

July 23rd, over $3\frac{3}{4}$ miles of highway constructed under the supervision of the Federal Bureau of Public Roads and linking in with the Rockefeller gift road, will be dedicated. This road known as the Cadillac Mountain Road ascends in a gradual climb on grades never exceeding 7 per cent to the top of Cadillac Mountain. At many points along this road are widened areas to permit motorists to park and enjoy the superb marine views. The upper observation plateau on Cadillac’s peak is the highest land on the Atlantic Seaboard from the coast of Labrador to South America.

The New York Times of May 22nd speaking of the coming dedication and the beauties of this National Park has the following to say:

“The exotic, ever-changing panorama of a sunset from Cadillac’s heights brings a rare thrill. In the vista of forest-bordered lakes and ponds, mountains, broad bays and the silvery-surfaced Atlantic, dotted with myriads of



“Panoplied with crags and trees”—

big and little islands, are blended all the colors of the rainbow. As the shadows deepen the yellow eyes of the lighthouse towers begin winking their warnings.

“At the foot of the mountain glow the lights from Bar Harbor, Seal Harbor, Northeast Harbor, Southwest Harbor, and to the north, Ellsworth.

“Here is a scenic jaunt which brings to the motorist a comprehensive view of Acadia National Park, hitherto impossible. Surrounded by the sea, this paradise has for its nucleus and central feature the famous mountains which prompted Champlain, their discoverer in 1604, to give the island its name, ‘Isle des Monts Deserts’.”

Professional foresters wherever they meet over the

(Continued on page 26)

ROAD BUILDING PROGRESS ILLUSTRATED

(Continued from page 12)

shire to build a road which would be comparable in alignment, width and strength.

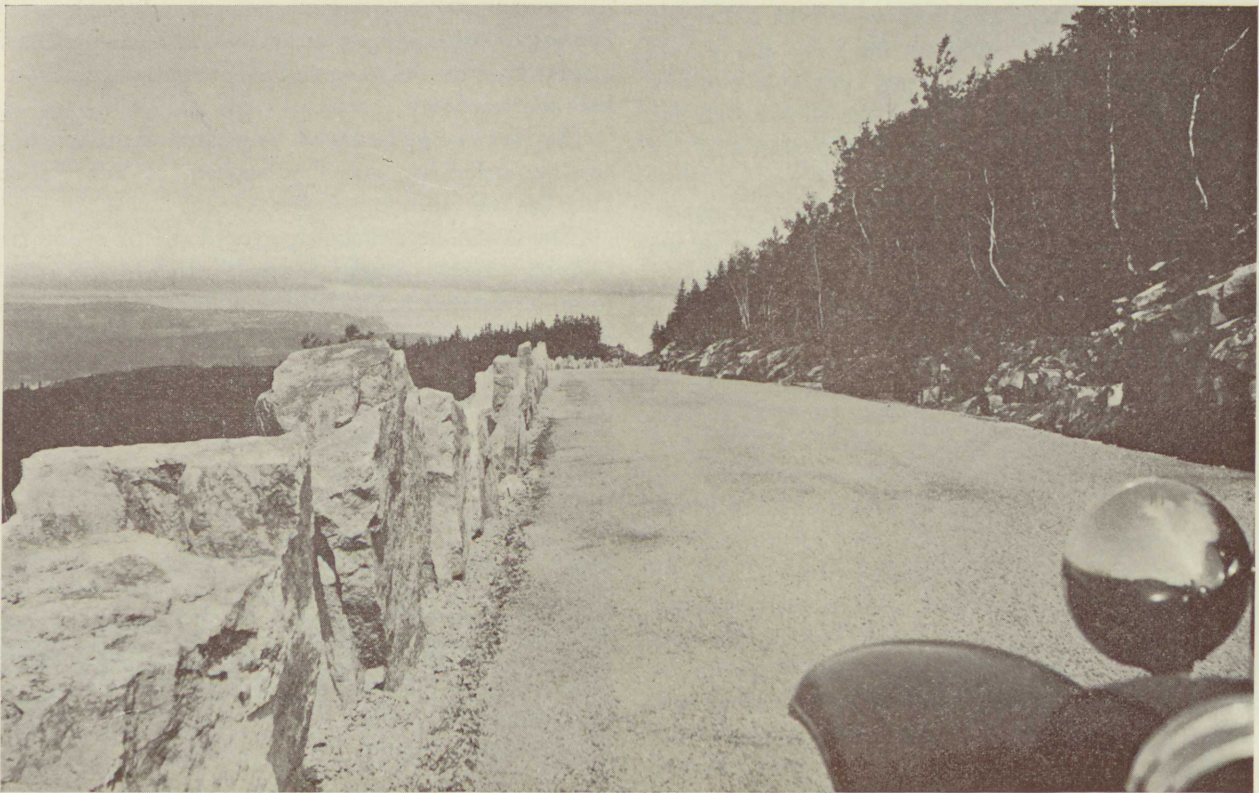
In addition to two sections of reinforced concrete of standard design, there was built some 60,000 square yards of penolithic pavement. As this was the first of this type of pavement built by this State, a description of the same cannot fail to be of interest.

Treating the Stone

In general details of construction this process varies but slightly from what we usually term ordinary penetration, but the attendant results are very marked. The

In this process a fifty-sixty penetration asphalt is used, which produces a stronger surface than is obtained in ordinary penetration. Also, owing to much better coverage, less asphalt is required to coat the stone; therefore, less is used, which gives a closer bond of stone to stone and makes the asphalt act more as a cement and less as a void filler. It also corrects the tendency to bunch or shove out of place and prevents bleeding or fattening up in hot weather.

Again, the oil reduces the surface tension of the asphalt on the stone so that a greater workability is secured which permits, during the rolling process, of an internal readjustment of the whole penetration course. In this manner, maximum density is secured and the



Smooth-surfaced roads, on a very moderate grade, bordered by a "railing" of natural rock, assure visitor and native every safety and touring pleasure in Acadia National Park.

COURTESY OF WARREN BROTHERS

difference consists, essentially, of treating the stone to be penetrated with a light hydro-carbon oil, such as would be suitable for fuel in a Diesel engine, previous to the application of the asphalt and the treatment of the cover stone, before it is spread, with the same oil. It is important to secure an oil which is mobile, of not too low a flash point and not too volatile. Incidentally, it might be remarked in passing that the application of oil to the stone prior to pouring with asphalt is in direct conflict with the hitherto inviolable rule that any stone on which oil was accidentally spilled should be removed from the work and replaced with dry stones.

stone tends to lie with a smooth face upward, which lends smoothness to the finished road.

Workability of the Course

Referring again to what has been termed the workability of the course: On account of the oil softening the inner film of asphalt, next the stone, an apparent softening of the asphalt occurs and the stone as rolled seem to knead, perceptibly at first, lessening after a couple of hours, and at the end of twenty-four hours stiffening up to its ultimate set. It is on account of this feature that it is desirable to keep traffic off entirely for a

(Continued on page 22)

DEPARTMENT OF LABOR AND INDUSTRY



**SAFETY ENGINEERING
SERVICE**



COOPERATING WITH

by **WALTER J. BRENNAN** *Safety Engineer*

STATE HIGHWAY COMMISSION



**CONSTRUCTION and MAINTENANCE
DIVISION**



MR. BRENNAN

Listed below are a few injuries such as have been taken from our 1932 files. These injuries have come out of all classes of road construction and should prove educational to those who have supervision over and responsibility for crews.

Accidents don't "just happen"—they are caused. The true and basic cause is rarely the apparent cause and the expressions "careless", "foolish", "ignorant" and "stupid" never satisfy when an intimate analysis is made in accordance with the best industrial practice.

We suggest that the injuries listed below as well as those familiar to you be analyzed for causes, utilizing the Basic Causes herewith and always appreciating the fact that the modern supervisor of foremen must play the role of leader, guide, educator and executive. The safety record of a crew is the measuring stick of their superior's interest and attention to the subject.

Case No. 1. In turning drum of chloride into spreader, slipped and right foot caught in spreader gear, severing first and second toes. Amputation of first toe about an inch of the first metacarpal joint. Gears, sprockets and projecting parts such

as may engage the worker's clothes should be guarded.

Case No. 2. In filling barrels with tar, hose connection on tank gave away and tar under pressure filled and covered right eye and side of face. Burn and inflammation of eye. Constant inspection and periodic renewal of vital parts is essential.

Case No. 3. Greasing gears while shovel was in operation. Bruised arm and side. Greasing and repair should only be permitted when machinery is stopped.

Case No. 4. Rock rolled down bank. X-ray shows

fracture of lowest rib, an inch from the spinal column on left side. Rocks and loose material should be constantly barred down and safe slopes maintained.

Case No. 5. The injured was holding a drill and another man was striking. The hammer came off the handle and struck him in the face. His nose was broken, had to be set, four stitches taken in the flesh. Who failed to inspect tools and reject this hammer?

Case No. 6. His work consisted of placing wooden stringers and planking in a bridge. Not realizing at

the time, he lifted more than he was capable of doing, straining his abdominal muscles. The hazards and likelihood of such lifting attempts should have been foreseen and sufficient workers assigned.

Case No. 7. Man was inspecting pipe culverts and was down in the trench looking over the pipe when the tripod used in lowering the pipe into the trench slipped and struck him on the head, causing a deep gash about 13 inches long. Head cut, incision required four stitches. Faulty equipment, lack of inspection, or both.

Case No. 8. Took cover off radiator which was boiling. Hot water blew into employee's face. Scalded face. Poor judgment or no judgment.

Case No. 9. Fatal. Gravel

sliding from under the frost, immediately followed by overhang which struck and drove him into body of truck. Crushed trunk, internal injuries, traumatic shock and death. No comment necessary.

Case No. 10. While shovelling, someone hit him on the lip with a shovel. Laceration upper lip. Poor supervision—workers permitted to work too closely together.

Case No. 11. Changing shoe on drag. Knocked skin
(Continued on page 27)

BASIC CAUSES

1. Failure to pay attention to what was being done.
2. Use of poor judgment. (Or no judgment.)
3. Haste.
4. Improper planning of work. (Not by the injured men.)
5. Disobedience of rules. (Who permitted this disobedience?)
6. Taking chances. (Who allowed chances to be taken?)
7. Interference by others. (Who failed to check this interference?)
8. Untidy or otherwise dangerous work spaces. (With whose knowledge and consent?)
9. Lack of experience. (Who put a greenhorn on a job where experience was needed?)
10. Defective tools, scaffolds, etc. (Who failed in inspection?)
11. Lack of skill. (See cause No. 9.)
12. Physical defects. (Ignored or unknown—equally culpable.)
13. Instructions incomplete. (Who failed?)
14. Safety rules not enforced.
15. Lack of safety equipment. (Through oversight or parsimony?)
16. Distracted attention. (Result of bad management.)
17. Physical weakness. (See cause No. 12.)
18. Defective materials. (See cause No. 10.)
19. Lack of guards. (See cause No. 15.)
20. Insufficient clearances. (See causes No. 8 and No. 15.)

AN ALLAGASH ADVENTURE

*(Continued from page 14)***Mr. Robie Gets Blame**

Jim trod about from one foot to the other, like a boy who has been caught stealing cookies.

"Well, 'er—Mr. Robie thought that we had better go up on that side of the lake."

"Tha's all right! Tha's all right! But why you no come 'cross where we are at noon?"

"Mr. Robie thought it was too rough;—too dangerous."



Jim and Henry carry the engine around the Falls

"Rough! Dangerous! She no too rough! She no dangerous! You know better'n that, Jim! I come 'cross there tonight. Why you no wait for me?"

"We weren't sure the wind was going down so Mr. Robie thought we had better come back to camp and get supper."

Henry lapsed into a moody silence.

The next day when Jim and I were out in the canoe, he faced me with a grin stretching from ear to ear. "You remember," he said, "about my laying all that trouble onto you last night?"

"Yes."

"Well, that worked all right while you were 'round; but Henry sure gave me hell after you went to bed."

Game was very plentiful about the lake. We either saw or found signs of about every kind of wild animal that lives in the State. We paddled so close to deer they looked crosseyed as they stared at us, and the saliva would drip from their wet noses as they tried to catch our scent.

During our stay at the lake the river had dropped rapidly. Sunday morning it didn't look as though it would be possible to return with the canoes. We put in a religious afternoon working like beaver to remove an old dry-ki fill from in front of the sluice-ways. When we finished there was nearly a foot additional water pouring under the gates. Monday morning the river looked like a spring freshet.

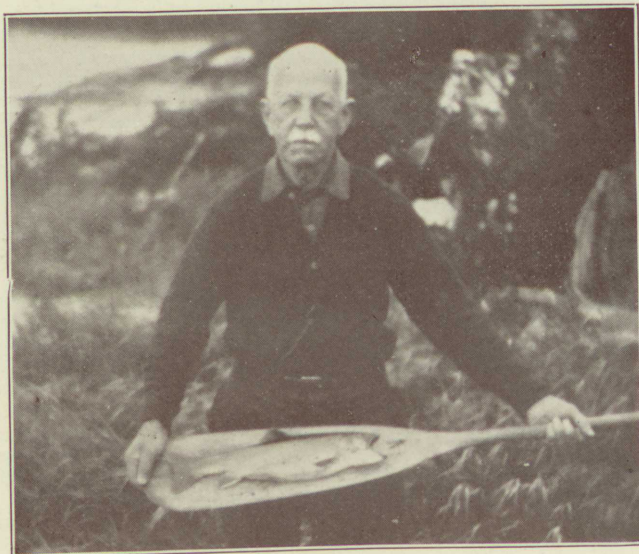
White Water Rides

Talk about white water rides! We had them that day!

There is no channel in this river and many places we did not dare to run, but had to ease our way down with the canoe poles. We made the trip to Clayton in less than eight hours including time out for lunch. I was able to help Jim with our canoe, but Henry had to do practically all the work in his canoe alone. But we had to hand it to him! Although his arms were nearly pushed from their sockets, he hung right to us the entire distance and came through with a whole bottom in his canoe.

Our original plans called for a portage across to the headwaters of the St. John and a return by that river to Fort Kent. Tuesday morning, Mr. Stobie, Commissioner of Inland Fish and Game for the State of Maine, with a party, arrived at Clayton Lake. They too had planned to make a trip down the St. John but had found the river so low that it was impossible. As Jim described it, "It was so darn flat you couldn't whip a sucker down stream."

He gave us a lift back to Umsaskis and we started our return down the Allagash. That night we camped on Long Lake, which is within the Allagash Game Sanctuary. Thoughtlessly, I dug out the pistol and



The "Squire" with a prize from Sweeney Brook

went up 'Sebemsicook stream after a mess of frogs. I had shot but one or two when around a bend came a canoe in which was seated a game warden—and Mr. Stobie.

"What you shooting, Robie?"

"Bull frogs."

"Don't you know that you are on a game sanctuary?"

I had to admit that I did, for our tent was pitched

(Continued on page 26)

Odd Shots

by
HILDRETH G. HAWES
PHOTOS BY AUTHOR



Each Summer, just after the closing of schools and colleges, an orderly horde of boys and girls joins the throngs wending their way to Maine. It might be likened to an army, a sort of advance guard of the great army of youth,

fastness of Maine's forests. You will find their camps nestled beside placid lakes and rushing streams. And as you watch these young people engaged in their daily tasks and pleasures, you will not wonder that they are happy while they learn.

That is one of the foundations of the summer camp business. By no other system can boys and girls be taught so much, so pleasantly. Swimming, lifesaving, first aid, canoeing, riding, hiking, tennis, archery, marksmanship, craftsmanship, needlework, woodcraft, nature,—the list is endless. Languages. In fact studies of all varieties, depending upon the camp selected. Sports without number. And all within the boundaries of a perfect vacationland.

In falling heir to this boy and girl camp industry,



The Class in Crawling will now Plunge into Study. Teacher is on the board.

a force engaged in a war for the preservation and betterment of health.

From all parts of the Union and from foreign soil, the soldiers and officers of this army come to partake of Maine's sunshine, to work and play beneath smiling skies, along the rock-bound coast or within the cool

the state of Maine inherited a several million dollar business. Today Maine has more camps for the exclusive use of youth than any other state or region in the United States. Her wooded hills, beautiful lakes and winding streams, surf-battered cliffs and wave-caressed

(Continued on page 27)

ROAD BUILDING PROGRESS ILLUSTRATED

(Continued from page 18)

whole day. In fact, it appears that the very best results are secured by allowing the first application to set for a day, before sealing, and then after the seal-coat has been applied, to allow several hours to elapse before opening to traffic.

On the Lafayette Road this was not always practicable, and several times the base course was opened to traffic within an hour after the application of the asphalt, and several times the finished road was opened within a half-hour after the application of the seal-coat. The entire work was accomplished without resorting to detours.

The quantity of asphalt which it was desired to get into the road was 12 lbs., or 1½ gallons, into the wearing course, and 4 lbs., or ½ gallon, into the seal-coat. The asphalt was figured as weighing 8 lbs., to the gallon at the temperature applied, so that the total quantity of asphalt was 2 gallons to the square yard. The control was so good that in the 60,000 square yards built, there were used 12½ cars of asphalt, totalling 120,000 gallons.

Preparation Important

The preparation of the base for this wearing surface was very important and care was used to make it strong

and smooth, for in no form of construction should irregularities in the base be taken out in the wearing course nor the wearing surface be relied upon to carry the load.

After the base course had been properly prepared and compacted, the course to be penetrated, or the wearing surface, was spread so as to roll to two and one-half inches in thickness. After sufficient rolling, this course was sprayed with the oil at the rate of one-eighth gallon to the square yard, and within ten minutes the entire stone of the whole course was completely coated with this oil, due to its mobility. From one to four hours after this treatment the 50-60 penetration asphalt was sprayed at the rate above mentioned and the result was a wholly black surface, none of the white blotches, so apparent in ordinary penetration, appearing.

In ten minutes after this, a stone lifted out would be found to be almost entirely coated on all sides with asphalt, which follows and adheres to the stone. The asphalt does not stand up in lumps but spreads neatly, due to the surface tension being reduced and excellent coverage is obtained. After standing as long as practicable with traffic conditions, but preferably twenty-four hours, the seal-coat was applied; the oil-coated chips were spread, broomed and rolled; and the road ready for traffic either at once, or better after a few hours. The pea stone used as a keystone in the penetration course had been previously treated with oil at the rate of one and one-half to two gallons to the cubic yard, and was applied at the rate of thirty pounds to the square yard. The quantity of pea stone used as cover in seal-coat was forty pounds to the square yard. This shows a less quantity of small stone used than in ordinary penetration, yet the surface was tight and the whipping action of the cover stone to the side of the road was noticeably less than in ordinary penetration.

In addition to the desirable features mentioned, and which prove to be very real, two other advantages should be mentioned. In the older form of what we term ordinary penetration during dry and dusty times, there is a lack of adhesion of asphalt to stone, which is overcome by the use of the oil. During cold, damp weather the asphalt chills and does not properly adhere to the stone. This is shown by the fact that the older form of penetration work which has been done in cold weather is noticeably poorer than that done under good conditions. While ideal climatic conditions are desirable for most any sort of construction, yet the penolithic process seems to overcome these two detriments to a very marked degree.

This is a patented construction which gives every indication of being a decided improvement over previous methods of building Asphalt Macadam highways by the penetration process.

Augusta Engraving Company

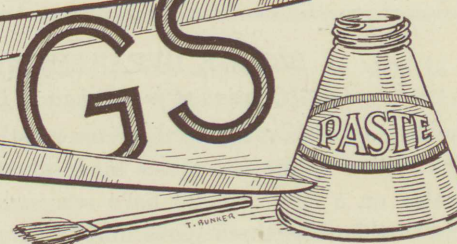
Photo-Engravers
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172 Water Street Augusta, Maine

Telephone 634

Plates for Maine Highways made by the
Augusta Engraving Co.

CLIPPINGS



In the smokeroom of the sleeping car the Scot had been boring everyone with tales of the great deeds he had done.

"Well, now," said an Englishman at last, "suppose you can tell us something you can't do, and, by jove, I'll undertake to do it myself."

"Thank ye," replied the Scot, "I canna pay ma railroad fare."—*The Earth Mover.*

Reporter—I've got a perfect story.

City Editor—Did the man bite the dog?

Reporter—Naw, a bull threw a congressman.

—*The Excavating Engineer.*

Now living on the other shore

Is Michael John O'Blank:

He'll use a lighted match no more
To look into a tank.

—*Georgia Highways.*

The teacher was drilling her class in the principles of subtraction. "Now, if you subtract twenty-five from thirty-seven, what's the difference?"

"Yeah, that's what I say," answered one of her pupils. "I think it's the bunk, too."

—*Florida Highways.*

Johnny giggled when the teacher read the story of a man who swam a river three times before breakfast.

"You do not doubt that a trained swimmer could do that, do you?" asked the teacher.

"No, sir," replied Johnny, "but I wonder why he didn't make it four times and get back to where his clothes were."—*Arizona Highways.*

A Contractor died and his will was filed for probate. It read: "Fix it so that my overdraft at the bank goes to my wife—she can explain it. My equity in my car goes to my son. He will then have to go to work to keep up the payments. Give my good will to the material and machinery companies. They took some awful chances on me and are entitled to something. My equipment and machinery you can give to the junkman; he has had his eye on it for several years. And I want

six of my creditors for pallbearers. They have carried me so long they might as well finish the job."

—*Texas Highways.*

It is gratifying to learn that the Chicago gentleman who wanted the street car to detour around his automobile will recover.—*Mississippi Highways.*

A tourist was enjoying the wonders of California as pointed out by a native.

"What a beautiful grapefruit!" he said, as they passed through a grove of citrus trees.

"Oh, those lemons are a bit small, owing to a comparatively bad season," explained the Californian.

"And what are those enormous blossoms?" asked the tourist.

"Just a patch of dandelions," said the Californian. Presently they reached the Sacramento river.

"Ah," said the tourist, grasping the idea, "somebody's radiator is leaking."

—*North Dakota Highway Bulletin*

Policeman—Hey, what are you

trying to do?

Inebriate—I'm trying to pull this lamp off the bridge, hic, my wife wants a bridge lamp.

—*Mississippi Highways.*

Mildred (daughter of a dentist): "Well, dear, have you asked father for my hand yet?"

Bashful Suitor: "No. Every time I step into his office I lose courage. Today I allowed him to pull another tooth."—*The Hercules Record.*

"Dearest Annabelle," wrote Oswald, who was hopelessly in love, "I would swim the mighty ocean for one glance from your dear eyes. I would walk through a wall of flame for one touch of your little hands. I would leap the widest stream in the world for a word from your lovely lips. As always, your Oswald.

"P. S.—I'll be over Saturday night if it doesn't rain."

—*The Earth Mover.*



BRIDGE DEPARTMENT

(Continued from page 15)

the section of line across the river must be on a curve. The radius of the curve was made about 800 feet. A bridge on a curve should have reasonably short spans and in this case, three spans of 40 feet each were used. The river bottom is soft, but foundation piling 40 to 50 feet long are able to support 12 to 15 tons safely, making possible concrete piers, abutments, and superstructure. Brackets were used on the superstructure not only for appearance but also to reduce the length of the piers and abutments. The roadway width was made 25 feet, giving ample room for two lanes of traffic on the curved road.

Regardless of difference in materials, all three of these bridges have the same design load, the standard truck having a gross weight of 15 tons. The Brunswick-Topsham bridge, in addition to this highway loading, is designed to carry loaded freight cars on the electric railway track.

State Police Inspect 85,303 Cars in Month of June

One needs only a glance at a small portion of the records in the State Highway Police office to conclude as to whether or not Maine's fifty-two officers have any time to spare.

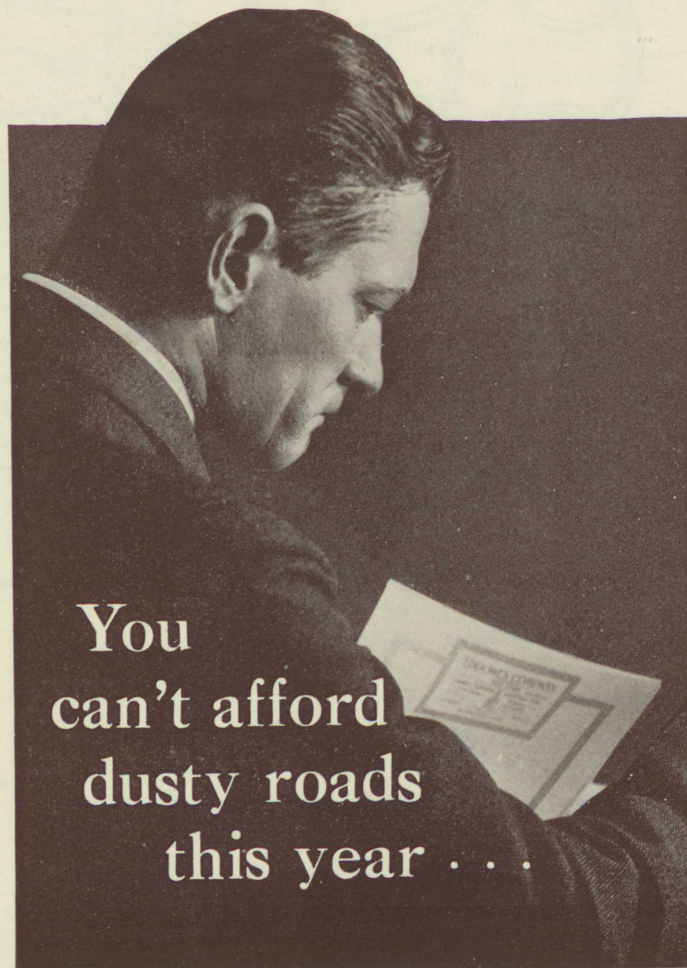
The current State Police report shows that 85,303 passenger vehicles were inspected during the month of June! And this represents but a part of the work of these officers and Chief James W. Hanson, who likewise serves the State as Adjutant General.

The record for the month in mention, in further detail, shows that from the passenger vehicle inspections, seven were found improperly registered; ten with defective brakes; 2,556 with defective lights and 17 with other defective equipment.

In the commercial division, 2,584 trucks were inspected and 138 weighed. Of this number, 34 were found overloaded; 148 with defective lights; six with defective brakes; 32 without mirrors; 35 improperly marked regarding weight and carrying capacity; one improperly registered; one with rear view mirror not of proper length; 47 others with defective equipment. One hundred and thirty-two drivers were found to have no operator's license.

And in the words of another: We're not puzzled because the fool and his money parted company; what we can't make out, in this day, is how they ever got together.

Simple, yet full of practical wisdom, is the statement accredited to Henry Ford that: "Automobiles won't go straight unless they are driven straight—and they don't know the way home."



You
can't afford
dusty roads
this year . . .

Economy budgets simply won't stand it!

TO save maintenance costs on gravel-type roads you have to save the road surface. That's why dust prevention with Solvay Calcium Chloride is a necessity and *not* a luxury. It's a real down-right economy measure because it saves valuable surface material. In many instances it saves in replacements more than enough to pay for itself.

Naturally, by holding surface materials on the road, Calcium Chloride also saves the cost of labor needed to replace them. And in addition, this ideal surface binder makes blading and dragging easier, more convenient, and more economical.

All these are important savings which you can't afford to overlook in times like the present. And for your own comfort, remember, too, that Solvay treatment will not only save money—it will stop kicks because it keeps roads smooth, dustless, and pleasant to use. Write today for free booklet 16816.

SOLVAY SALES CORPORATION

*Alkalies and Chemical Products Manufactured by
The Solvay Process Company*

61 BROADWAY

NEW YORK

SOLVAY



TRADE MARK REG. U. S. PAT. OFF.

Calcium Chloride

FLAKE 77%-80%

FOR IDEAL DUST PREVENTION

THE HIGHWAY PROGRAM

(Continued from page 13)

maintenance, any balance may be used for construction.

In the past there have been occasional misunderstandings as to whether certain appropriations could properly be included in the total used to compute the tax rate. It is suggested that, in case of such questions, municipal officers refer the matter to the Commission before filing applications. After apportionments are once made it is rather difficult to make adjustments.

Under "Rules of Construction" as set forth in Section 2 of Chapter 28, R. S., the word "Valuation" shall mean the valuation last made by the State Assessor; therefore the valuation of a town as last reported by the State Assessor is the valuation used in computing the tax rate for roads and bridges in determining whether or not this tax rate is four mills or over.

Perhaps the apportionment of third class highway funds may best be explained by an example; For instance—

Assume the following data:

Appropriation by town for state aid road	\$600.00
Appropriated by town for bridge construction under general bridge act	2000.00
Summer roads	4000.00
Winter roads	1000.00
Sidewalks	500.00

Total \$8100.00

Valuation of town \$801,000.00 (State Assessor)

Total Mileage 96.0

Mileage of designated state highway 5.0

Mileage of designated state aid highway 8.0

Computation of tax rate:

Total appropriation, roads and bridges \$8100.00

Deduct appropriations for state aid road and bridge construction under bridge act 2600.00

\$5500.00

The sum of \$5500 is the amount to be used in determining the tax rate. With a valuation of \$801,000 the tax rate for town's roads and bridges is 0.068 and therefor the condition of the law, as to tax rate, has been fulfilled.

Assume that the total third class highway mileage of all towns entitled to participate in the third class highway fund is 14,500 and that the fund available for apportionment, after making reservations for supervision and compensation for injuries, is \$690,000; the rate of apportionment per mile is, therefor, \$47.58.

Total mileage 96

Deduct: Designated state highway 5.0

Designated state aid highway 8.0 13

Third class highway mileage 83

Apportionment to town— $83 \times \$47.58 = \3949.14

Assuming that the town has fulfilled all conditions specified in the law, the apportionment would be made as computed.

As of April 15, the total mileage of third class roads of the state was 15,034.45. In the apportionment of third class funds for 1932 it was found that 441 towns were entitled to apportionments. The third class highway mileage in these towns was 14,243.48.

Following is a statement of the 1932 apportionment:

Appropriation	\$700,000.00
Reserved for supervision, compensation for injuries and contingencies	\$9191.22
Apportionments to 441 towns	*690,808.78
	\$700,000.00

* $14243.48 \times \$48.50$ (rate per mile)

Of the total third class highway mileage approximately 1823 miles, at the present time, have been designated as the third class highway system for improvement through third class highway funds.

Under present law third class highway funds cannot be used for the construction of State Aid or State highways.

From 1920 to 1931, inclusive, approximately 1036 miles of third class highway have been constructed.

Even during the quiet of 1931, the automobile kept 4,000,000 directly at work and an additional 1,000,000 men busy supplying raw materials. Highway and street building employed 1,000,000 workers directly and the labor of 2,000,000 others was required in supplying equipment and materials. But if during the last few years highway construction had lagged, no one knows how much more serious economic conditions would be at present.

Frederick E. Everett, President, American Association of State Highway Officials.

—Rock Products.

PLAIN AND REFLECTING BUTTON

ALL KINDS OF TRAFFIC SIGNS

Town Line → **SIGNS** ← Guide Boards
Stop → ← Parking
Street → ← Cemetery Markers

ALL RAISED LETTERS

ALUMINUM RUST PROOF

MANUFACTURED BY

J. B. INGHAM

15 Reservoir St.

Nashua, N. H.

MONTHLY TOURS

(Continued from page 17)

country always sing the following, which might seem an anti 18th amendment song but really is not:

Down under the hill there is a little still
Where the smoke goes curling to the sky,
You can easily tell by the snuffle and the smell
That there's good liquor in the air close by;
It fills the air with a fragrance rare
That's only known to a few,
So pucker up your lip and have a little sip
Of the good old mountain dew.

So when we have had our fill of the good old mountain dew and the wonderful views from Cadillac we'll return to the base of the mountain for a trip around Mount Desert Island where each turn in the road brings new vistas of beauty and spots of interest and then back to Ellsworth and on home to Bangor realizing that we have just taken one of the premier motor trips of the east and enjoyed one of the finest views on the entire Atlantic coastline.

AN ALLAGASH ADVENTURE

(Continued from page 20)

right under one of those big tin signs, but as I explained, it hadn't occurred to me that it was against the law to shoot bull frogs anywhere, especially in here, a hundred miles from civilization.

"The frog part of it is all right," he said, "but people out on the lake have no way of knowing what you are shooting at so you had better put up that pistol." This I did gladly, for it was a long haul from there to Fort Kent, and I wasn't ready to make my initial bow in court. I got my frogs, however, but had to revert to primitive methods.

The return trip was much the same as the journey up stream. We made better time and noticed that the big trout, logy and heavy with spawn, were coming back into the river.

Some one, sometime, somehow, will repeat this trip into this happy hunting ground of Maine. On that occasion they will find the nearest approach to a virgin wilderness that lies out of doors east of the Rocky Mountains—and maybe they will solve the mystery of big togue in Chemquasabamticook Lake!

To discover whether an ostrich is male or female—tell it a joke.

If he laughs, it's a male.

If she laughs, it's a female.—*The Excavating Engineer.*

Certainty of punishment is more important than severity.

DOWFLAKE

CALCIUM CHLORIDE

Gives Effective
DUST CONTROL



You can settle the dust question this summer with Dowflake Calcium Chloride. Dowflake is the clean, white, odorless, non-tracking material that controls dust with clean moisture absorbed from the air. It gives roads that moist, firm, inviting appearance that makes pleasant driving.

Dowflake is easy to apply. Spread upon the road, it melts itself into the surface, binds the road materials, and holds them on the surface where they belong. It keeps roads moist and dust-free for long periods of time. It simplifies maintenance, and reduces both maintenance and surface material replacement costs.

Use Dowflake Calcium Chloride this season. We will gladly send complete information.

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MIDLAND, MICHIGAN

New York Branch Office:

60 E. 42nd Street, New York City

Maine Representative:

John P. Webster & Co.,

61 Main Street, New Coe Building, Bangor, Maine

DOWFLAKE

CALCIUM CHLORIDE

77-80%

ODD SHOTS

(Continued from page 21)

beaches, her tonic-like air, have caused the conception and construction of over 225 institutions of pleasant learning.

It is interesting to note that it is still a growing business, and that, although the camping idea was introduced as applicable only to the young males of the country, now very nearly half of the camps are for the exclusive use of America's girls.

Annually fourteen thousand people, including campers, instructors, and attendants, cross the borders of Maine to participate in this movement. They come over our highways, our railroads, our steamship lines. Four thousand of these folk may be listed as workers or instructors. The others are boy and girl students, whose parents pay on an average of three hundred dollars a

season for their membership in this army. Easily is four million dollars expended, if we add the officially estimated one hundred dollars per camper spent in Maine for miscellaneous items ranging in nature from clothing to lollypops; that, without taking into consideration the money expended by the camp workers, the officers of this force.

These camps are strictly regulated. The state health department has considerable to say to the camp owners, and they in turn watch their broods with eagle eyes. And this strictness results in safety. Sanitation is only one phase. Canoes are forbidden to those who have not yet learned to swim, and experienced guards, or rather instructors, are present during the bathing hours. So these young people live a sane, happy, healthful life in Maine.

"Early to bed and early to rise," is no mere saying. They are up with the sun and usually fast beneath the covers before the shades of night have completely fallen.

Bases of Operations

The majority of these camps can be called bases of operations. There are canoe and hiking trips of short and long duration. Down beautiful waterways, up picturesque slopes the campers go, well guided and guarded, enjoying unique opportunities that were forbidden to their forebears. For those who are too young to undertake extended journeys there are short trips to

the woodlands. There they are taught woodcraft, the ways of nature, and some day they will join their older brothers and sisters, well prepared.

Competition is fostered by many boy and girl camps, in fact, by the majority of them, for so is interest aroused and sustained. It may be merely between the members of selected groups within the organization of the individual encampment, or between the organizations, the teams, of separate camps that are friendly rivals. The regattas of yacht clubs on inland waters nearly always include canoe, swimming, diving and sailing events open to campers. And regatta day is a gala one.

In contrast to athletic competition we find dramatic clubs producing theatrical performances of many descriptions; classes in dancing, and training in the ways of the social world.

When all is said and done, the life of the youthful camper is a well-rounded one, a period well calculated to give his later years a fullness, a richness. But he will often view in retrospect his weeks, his months, in camp, and will be well pleased, will send his children to Maine to learn in the sane and pleasant way.

SAFETY BULLETIN

(Continued from page 19)

off knuckle of middle finger on right hand. Infection set in. First Aid equipment, First Aid policy and systematic follow-up essential.

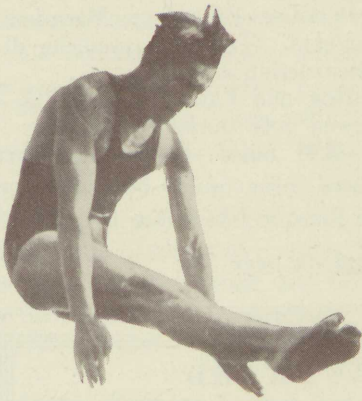
Case No. 12. Stepped from behind truck and was struck by motor cycle. Fractured two ribs, left side chest, compound fracture of bone in left upper arm, multiple abrasions of face, concussion of brain, injury to bladder, injury to kidneys, misc. bruises. Indicating necessity for well-defined traffic lanes, constant thought of passing vehicles, traffic control men and insistence that vehicles proceed slowly, using horn. Proper and conspicuous warning signs.

August is the most dangerous month for motoring, with November and October following closely behind. February is the low month of the year for autocides, the result both of fewer days and poor driving conditions which keep many cars in the garage. Autos cause more deaths by accident than any other single cause during each of the twelve months of the year.

Do what you are paid to do, and then some. It's the "then some" that gets your salary raised.—*Exchange.*

Madge—Gus is an awful pest. He never seems to know when to stop.

Lena—That's strange. I was out riding with him last night and he found a dandy place.

*Coming Down!*

HIGHWAYS AND BRIDGES

RECENT LETTINGS

Date of Letting	Town	Route	Length and Type	Bid Price	Name of Contractor
July 5, 1932	Lubec	189	Kelley Bridge	\$ 4,735.75	James Frederick & Co., Pittsfield, Me.
July 5, 1932	Trescott	No route	Rice Bridge	3,248.75	James Frederick & Co., Pittsfield, Me.
July 5, 1932	Limestone	165	Bridge Street Bridge	6,427.80	C. W. McEachern, Greenville Jct., Me.
July 5, 1932	Indian Township	1	Huntley Brook Bridge	6,961.16	James Frederick & Co., Pittsfield, Me.
July 5, 1932	Knox	No route	Knox Station Bridge	2,410.50	James Frederick & Co., Pittsfield, Me.
July 5, 1932	Macwahoc Pt.	2	Molunkus Bridge	25,595.20	Edmund Cyr & Co., Waterville, Maine
July 5, 1932	Belfast	137	White Bridge	9,453.00	James Frederick & Co., Pittsfield, Me.
July 5, 1932	Dexter	100	1.43 miles concrete surface	36,275.80	Wyman & Simpson, Inc., Augusta, Me.
July 5, 1932	Oxford	26	Little Androscoggin River Bridge	10,104.00	Lackawanna Steel Construction Corp. Buffalo, N. Y.
July 20, 1932	Reed Pt.	166	(Steel superstructure) Wytopitlock Stream Bridge	5,714.50	Reynolds Contracting Co., Roxbury, Mass.
July 20, 1932	Island Falls	2	Iron Bridge	22,334.10	W. H. Hinman, Inc., Skowhegan, Me.
July 20, 1932	Oxford	26	Little Androscoggin River Bridge (Substructure and Floor)	35,358.50	Green & Wilson, Waterville, Maine

Highway Construction Bulletin

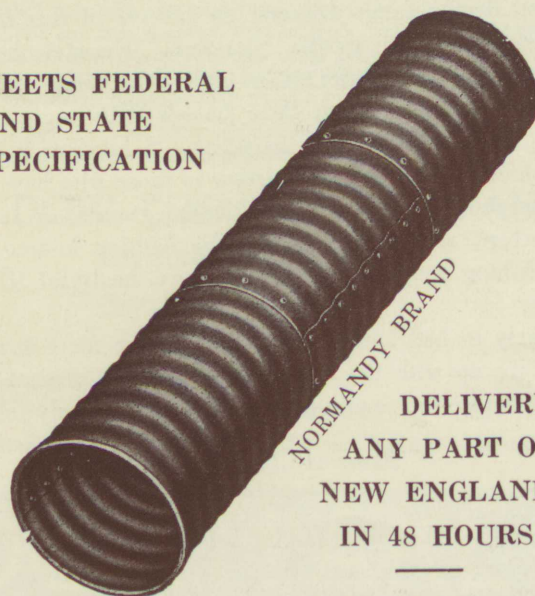
The following bulletin pertaining to highway construction work is issued for the benefit of the traveling public from the office of the State Highway Commission, dated July 20th:

- ROUTE 1—Saco—3.00 miles—Bituminous Macadam. Beginning at Cascade Road and extending into city. Greater part of the work is widening present pavement. Travel allowed over work.
- ROUTE 1—Edgecomb-Newcastle—3.62 miles—Gravel. Travel allowed over work.
- ROUTE 1—Damariscotta-Nobleboro—7.34 miles—Gravel. Travel allowed over work. Alternate route with tarred surface by way of Damariscotta Mills and Nobleboro.
- ROUTE 1—Lincolntonville—3.98 miles—Gravel. Travel allowed over work. Alternate route signed around work.
- ROUTE 1—Holden-Dedham—5.89 miles—Bituminous Macadam. Travel allowed over work.
- ROUTE 1—Ellsworth—6.16 miles—Bituminous Macadam. One-way detour provided. Traffic in opposite direction goes over construction work.
- ROUTE 1—Baileyville-Baring and Calais—7.95 miles—Gravel. Travel allowed over work.
- ROUTE 1—Presque Isle—5.91 miles—Bituminous Macadam. Travel allowed over work but alternate route provided from Presque Isle to Caribou.

(Continued on page 32)

CORRUGATED
CULVERT PIPE

MEETS FEDERAL
AND STATE
SPECIFICATION



DELIVERY
ANY PART OF
NEW ENGLAND
IN 48 HOURS

UNIVERSITY 6435

PENN CULVERT COMPANY

675 Concord Ave.

Cambridge, Mass.

ACADIA A BOYHOOD DREAM

(Continued from page 11).

which he seeks no personal glory—you have but to gaze on and visit Acadia National Park.

Incidentally (and we feel that is the proper word), he is Superintendent of the Park; is briefly rated as such, together with being its founder, in *Who's Who In America*.

Who's Who, further, tells us that Mr. Dorr is a student, scientist, born in 1853; an unmarried man; also indicates that he is well educated, has devoted much time to plant life, public reservations and landscape gardening.

That is not exciting or particularly newsworthy: You would just naturally expect it, take it all for granted, after meeting the man. You would know that he set out on a purpose in early life, trained his mind for what he had to do, denied himself many privileges and pleasures to give his undivided time to the labor ahead.

The nearest he comes to telling you that, in substance, or anything else regarding himself is, in his own words:

"The impelling causes of what people do may generally be found far back. What led to my own interest in nature and landscape, in their conservation, and in sharing the pleasure got from them with others came from years of close association, both abroad and in this country, with my father and my mother, who inherited in turn from older generations."

For One And All

Acadia National Park is a spot for all. Classes of people, regardless of station or position, may come here and take away enjoyment and happiness far and beyond the realm of monetary value.

And neither, curiously enough, has Mr. Dorr made nor attempted to make a monument to himself or family from Acadia National Park. The development has been his life-time's work, but he is wholly satisfied, for his part, to accept in payment the knowledge that he has done something for others; that he has *given* something instead of *taken* something.

Many have assisted him, contributed priceless efforts, but for this brief article, their magnanimity is sought that exclusive lines may be devoted to this man, now in the sunset of life, who may gaze upon 'his' beloved hills of Acadia and find there carved the achievement of an inherent custody.

A Kindly Man

Mr. Dorr is a kindly man; ever a gentleman in every deed and act.

He has a merry twinkle in his eye, a good color in his cheeks, the kind of a laugh you're bound to like, a lot of wit—and loves a prank. He makes you feel that advanced age cannot be so serious after all! Visit with

him a day, note his activities and pleasures—most all of which are akin to work—and you can't help from returning with a lighter step and in a happier frame of mind.

He radiates those qualities, talks on any subject you wish, writes and reads in eight languages, spends his evenings translating from the original Greek, makes haste when there is need—but has a most enjoyable habit of not making too much haste!

And now your patience is requested for a moment while we go into the 'first person' part of this account.

Reportorial Tactics--and Comebacks!

On the day I interviewed Mr. Dorr warning was given by friends that he would talk for hours on the subject of Acadia National Park—but that I had best watch out if any attempt was made to lead him onto the subject of George Bucknam Dorr.

"Unfortunately, what is it you wish to discuss?" he greeted, with a smile, having an inkling of what my call was all about.

"Unfortunately, I would like to know a few things about George Bucknam Dorr," was my reply.

"Very well," he returned, much to my surprise, and immediately began telling me about the beautiful hills and view thereabouts.

It was finally realized that he was evading the point, so, as tactfully as possible, the conversation was swung to the personal side once again.

"Oh, yes, to be sure, you desire to know about George Bucknam Dorr," he said—with apologies for using the quotation marks—it was simply something like that. Nevertheless, my hopes were raised as he left the room a moment, to return with an old family house-book. Turning the pages, he finally came upon an original poem, written in pen and ink, by Oliver Wendell Holmes.

"Would you just read that?" he invited.

Very thoroughly I read the lines, believing that he was to tell me a story of his life, which, perhaps, had an association with this verse.

Hide and Seek

About ten or fifteen minutes later I found him at his desk in another room. He greeted me with a smile, took the house-book for a moment, turned to another page and invited me to read another bit of verse.

I was most happy to do so, especially in the thought that it was bringing me closer to the information I sought.

After the second reading was completed, I discovered that Mr. Dorr had disappeared again. About ten minutes later I found him, working as usual. Just as though he wished to groom me further he said:

"Come and I will show you about."

He did—but still said nothing of himself.

Tarmac
MAKES GOOD ROADS



Koppers Products Company, Inc.

Providence, R. I. - Boston, Mass.

Distributing Plant — Portland, Me.

Finally he reached upon the mantel, removed a glass vessel which contained a fine sand; walked over close by the light of a window. At last, I thought, he is going to give me some personal information! That sand, I was sure, came from the rock on the top of Cadillac—and who knows but what it represented his initial inspiration in behalf of this Park?

"See how fine it is," he said, as he allowed a bit of the contents of the jar to stream into his hand.

"Yes, yes!" I agreed with genuine enthusiasm.

He carefully placed the jar back upon the mantle.

"From the rock on Cadillac?"

"Oh, no," came very casually, as he set about moving some papers here and there. "Banks of the river Nile!"

He Wins the Day

It was then lunch time—and I hustled through the hour, with cooperation from Mr. Dorr's efficient secretary, Miss Oakes, who realized the task I had buckled up against.

I wondered just how long this gentleman could so courteously, but efficiently, avoid my direct questioning. . . . I wanted to be a good cross-examining lawyer for about fifteen minutes!

"Miss Oakes," came a pleasant command. "Will you see that this young man is given a ride up over the mountain?"

"No, no!" I almost shouted. "I just want to talk with you, if you please."

"Oh, but you should see the mountain," he replied with that same politeness and smile.

"But I've seen it a thousand times," I protested.

"But you must see it again," he insisted.

Before I could do any more insisting, I was hustled into a car, and as it's said: taken for a ride! And I spent the remainder of 'my interview' looking at scenery from the mountain tops while Mr. George Bucknam Dorr—I'll wager a cooky—chuckled, as he worked in his modest little study in the foothills, because he had outwitted another reporter!

Honored by Congress

It is quite generally known that Mr. Dorr has been paid a distinct honor by Congress. His work was appreciated to the extent that the Federal government passed a special bill allowing him to be retained as Superintendent of Acadia National Park, after he had reached the age of retirement.

There are many intimate facts regarding his life and public career which pass from mouth to mouth; which should be written, that this man might receive the fullest credit for his accomplishment.

But if one wishes to be exact, he must gather the material for such an account from Mr. Dorr, and Mr. Dorr alone, and as yet he does not feel it necessary or expedient to associate his own personality with Acadia National Park.

He is satisfied and happy to carry on the work of his fathers for the enjoyment of humanity.

Mr. Barrows Attends N. Y. Meeting

Chief Engineer Lucius D. Barrows, who is Vice President of the Association of State Highway Officials of the North Atlantic States, attended a meeting of the directors of that organization, held in New York on July 15th.

The purpose of the session was to determine the location of the annual convention, to be held in 1933, Atlantic City being selected.

The BOND Co.

HAROLD L. BOND, Pres.

DEALERS IN TOOLS AND EQUIPMENT FOR
CONSTRUCTION WORK

39 Old Colony Avenue

South Boston

Telephone South Boston 0764

YOUR UNCLE SAM HELPS

(Continued from page 16)

was adopted, with two short additions, by the Bureau of Public Roads. At later dates, other additions have been made by the Commission so that, at present, there are approximately 1,572 miles or very nearly 7% of all mileage in the State on the Federal aid System.

When the State wishes to improve a certain section of highway, the Commission files a Project Statement accompanied by a sketch map of a portion of one of the routes shown on the original plan. Usually this Project Statement covers a section between important points or connections with other routes, which points are known as "Control Points" and which were so designated when the Federal aid system was adopted. Occasionally an intermediate control point between the original control points is adopted when the balance of the section requires further study before the entire route is determined. This Project Statement is accompanied by a general description of the route, its grades, alignment, bridges, railroad crossings and any other pertinent data together with a brief description of the section first proposed for improvement. The Project Statement itself refers to the Statutes by which the State's share of the money for construction and maintenance is to be raised. When this Project Statement is approved, Plans and Estimates for any number of sections up to ten may be submitted. Plans, estimates and specifications for the particular section it is proposed to construct are prepared and submitted to the Bureau. A detailed study of these plans is made and when approved by the Federal District Engineer, actual construction may be begun subject to such changes as may be required by the Bureau of Public Roads at Washington.

A Project Agreement covering the section under construction is executed by the Secretary of Agriculture, representing the United States, and by the State Highway Department, representing the State. This contract covers the terms under which Federal aid is to be paid on that project. The Bureau of Public Roads requires the State to submit certified copies of bids received for doing the work and for materials purchased by the State. It also requires certified copies of all contracts entered into and of the results of tests on the materials used.

Vouchers are submitted to the Bureau during the progress of the work and at its completion showing the work performed and payment is made on these vouchers.

The Secretary of Agriculture is the head of the department of the United States under whose authority the Bureau of Public Roads acts. The Chief of the Bureau is Thomas H. McDonald. The State of Maine is in District No. 9 with District Offices at Troy, New York under the supervision of A. G. Bruce. The Bureau is represented in Maine by Mr. H. D. Fallon who has direct

contact with the Commission during the preparation of plans and, with his assistant, Mr. Fred W. Pierce, has direct charge of the inspection of construction and maintenance for the Federal Government.

Seven famous educational institutions have arranged to send groups of scientists to the Fryeburg-Lovell region, in Maine, to observe the eclipse of the sun, Wednesday, August 31. The institutions are the University of Michigan, the University of California, Northwestern University, Georgetown University, Swarthmore College, Wellesley College, Hood College.

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CONCRETE CURING
REFRIGERATION
BRINEDUST CONTROL
ROAD MAINTENANCE
DUSTLESS FUELS

Write for Complete Information

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packed in 100 lb. bags and in
375 lb. steel drums.**E. & F. KING & CO., INC.**NO. 399 ATLANTIC AVE.
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Waterville Farmington**THE KENNEBEC JOURNAL
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Maine's Best Known All the Year Around Hotel

200 ROOMS BATH Rates \$2.00 up

RICHARD I. PETERSON, Manager

HIGHWAY CONSTRUCTION BULLETIN

(Continued from page 28)

ROUTE 1—Fort Kent—1.00 mile—Concrete. Travel allowed over work.

ROUTE 1-A—Mars Hill-Westfield—4.00 miles—Bituminous Macadam. Travel allowed over work.

ROUTE 2—Newport-Plymouth—3.67 miles—Concrete. Travel allowed over work.

ROUTE 2—Hermon-Carmel—2.00 miles—Concrete. Travel allowed over work. Alternate route, with tarred surface, from Hermon Center to Bangor.

ROUTE 4—Berwick—About 3.00 miles—Gravel. Work will begin about July 26. Travel allowed over work.

ROUTE 25—Gorham and Standish—8.66 miles—Concrete. Travel allowed but alternate route provided from Mosher's Corner, following Route 114 to Sebago Lake and road to Standish Corner.

ROUTE 26—Poland—7.21 miles—Bituminous Macadam. Travel allowed over work.

ROUTE 26—Oxford—3.75 miles—Bituminous Macadam. Travel allowed over work. Alternate route for part of project from Five Corners on Route 26 to Mechanic Falls and Route 121 to Welchville.

ROUTE 100—Clinton and Pittsfield, Detroit and Palmyra—4.89 miles—Concrete—7.12 miles—Concrete. Travel allowed but alternate route provided from Fairfield to Hinckley. Canaan and Newport. Alternate route for through travel via Route 138 from Augusta to Hampden, then Route 1 to Bangor.

ROUTE 100—Waterville-Oakland—3.24 miles—Base with temporary surface. Travel allowed over work. Alternate route marked by way of Sidney road to Oakland.

ROUTE 100—Dexter—1.43 miles—Concrete. In Dexter Village. One way traffic over the job and detour in opposite direction.

ROUTE 101—Washington—3.50 miles—Gravel. Travel allowed over work.

ROUTE 102—Liberty-Palermo—5.00 miles—Gravel. Travel allowed over work.

ROUTE 116—Naples—1.25 miles—Bituminous Macadam. Travel allowed over work.

ROUTE 116—Casco and Poland—4.00 miles—Bituminous Surfacing being applied. Travel allowed over work.

ROUTE 126—Wales—3.00 miles—Gravel. Travel allowed over work.

ROUTE 128—Edgecomb—3.00 miles—Grading and base. Travel allowed over work.

ROUTE 174—Bucksport-Orland—4.58 miles—Gravel. Travel allowed over work.

Present Construction Work

Gives Employment to 8,317

According to the latest reports there are 528 sections of State Aid, Third Class and Special Resolve roads under construction.

On this work 2,444 trucks, 593 teams and 8,317 men are employed. The total hired personnel of 8,317 men includes truck drivers, teamsters, power shovel operators, compressed air-drill operators, laborers and foremen.

Due to the fact that power shovels are not being used as extensively this year as in previous years, a larger force of men is employed. In order to spread the work out so that as many people as possible will benefit, on several jobs the crews are alternated weekly.

"Cut Out Your Cutting In"

Contributed by Robert B. Rogers, Scarsdale, N. Y.

Of all the reckless speeders

At forty miles or more,

There's just one guy along the pike

Who makes me mighty sore.

'Tis the guy who's never satisfied

To hold his place in line,

And, regardless of all other cars,

Cuts in from time to time.

Whether you drive a Packard

Or a Ford of crumpled tin,

Just do your bit for "Safety First"

And Cut Out Your Cutting In.

—Tours and Detours

QUALITY

STATE - CITY - TOWN

HIGHWAY

CONSTRUCTION

AMOS D. BRIDGE'S SONS, Inc.

HAZARDVILLE

CONNECTICUT

Carlton Bridge Shows Increase in Traffic

Motor vehicle and passenger traffic over the Carlton bridge, at Bath, together with cash receipts, showed a gain for the first six months of 1932 over that of the similar period in 1931.

In a report to the State Highway Commission from

the State Controller it is shown that the first half of the present year brought 11,401 more cars over the bridge and 16,007 more people, while the gain in cash amounted to \$746.85.

The figures are given as follows:

	Motor Vehicles		People		Cash	
	1931	1932	1931	1932	1931	1932
Jan.	10539	14540	18261	27753	\$ 4,265.45	\$ 4,765.60
Feb.	9332	13341	19000	24858	3,425.15	4,431.50
Mar.	13182	15511	26386	30038	4,942.10	5,495.95
Apr.	21469	20102	46031	39632	9,302.65	7,806.05
May	30261	32908	68966	73870	13,222.60	14,166.30
June	34221	34003	78505	77005	14,838.40	14,077.80
	119004	130405	257149	273156	\$49,996.35	\$50,743.20

Bridge Construction Bulletin

The following information regarding bridge construction work is given out by the State Highway Commission, dated July 20th:

- ROUTE 1—Ellsworth—Ellsworth Falls Bridge. Temporary bridge provided.
- ROUTE 1—Calais—Maguerrewack Bridge. Temporary bridge provided.
- ROUTE 1—Indian Township—Huntley Brook Bridge. Temporary bridge provided.
- ROUTE 1—Monticello—Maduxnekeag Bridge. Traffic using old bridge.
- ROUTE 1—Presque Isle—Covered Bridge. Temporary bridge provided.
- ROUTE 1—Lincolntonville—Duck Trap Bridge. Temporary bridge provided.
- ROUTE 2—Macwahoc—Molunkus Bridge. Temporary bridge provided.
- ROUTE 2—Island Falls—Iron Bridge. Not yet started.
- ROUTE 4—Turner—Turner Bridge. Not yet started.
- ROUTE 26—Grafton Plantation—Mother Walker Bridge. Traffic using old bridge.
- ROUTE 26—Oxford—Welchville. New bridge open for traffic.
- ROUTE 26—Oxford—Little Androscoggin Bridge. Not yet started.
- ROUTE 100—Pittsfield—Main Street Bridge. New Bridge open for traffic.
- ROUTE 100—Oakland—Dunn Edge. Detour.
- ROUTE 101—Washington—Bowmen Bridge. Temporary bridge provided.
- ROUTE 121—Minot—Poland—Hackett Mills Bridge. Traffic using old bridge.
- ROUTE 137—Belfast—White Bridge. Traffic using old bridge.
- ROUTE 138—Dixmont—Center Bridge. Temporary bridge provided.
- ROUTE 142—Carthage—Newman Bridge. New Bridge open for traffic.
- ROUTE 165—Limestone—Bridge Street Bridge. Temporary bridge provided.
- ROUTE 166—Reed—Wytotpitlock Bridge. Not yet started.
- ROUTE 167—Codyville Plantation—Little Tomah Bridge. Temporary bridge provided.

ROUTE 174—Orland—Orland River Bridge. Temporary bridge provided.

ROUTE 178—Bradley—Nichols Bridge. Traffic using old bridge.

ROUTE 201—Anson—North Anson Bridge. Temporary bridge provided.

ROUTE 201—Forks Plantation—The Forks Bridge. Traffic using old bridge.

ROUTE 201—Brunswick—Topsham—Androscoggin River Bridge. New bridge open for traffic.

ROUTE 209—Phippsburg—Bath—Winnegance. Temporary bridge provided.

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No ROUTE—Jefferson—Gerry Bridge. Traffic using old bridge.
 No ROUTE—Stow—Cold River Bridge. Not yet started.
 No ROUTE—Knox—Knox Station Bridge. Temporary bridge provided.
 No ROUTE—Limington—Webster Mill Bridge. Temporary bridge provided.
 No ROUTE—Chelsea—Trask Bridge. Not yet started.
 No ROUTE—Windham—Standish—Eel Weir. Temporary bridge provided.
 No ROUTE—Clinton—Decker Bridge. Temporary bridge provided.
 No ROUTE—Willimantic—Goodall Bridge. Temporary bridge provided.

She: "But, dear, can't we live on love?"

He: "Sure your father loves you, doesn't he?"

Two Irishmen were once walking toward New York, when they met a man and asked him how much farther they had to travel, and were told it was yet twenty miles to the great city.

"Faith, we'll not reach it tonight," said one of them, much dejected.

"Och, Pat, come on. Twinty moils! Shure that's not much; only tin moils apiece."—*Highways of Happiness.*

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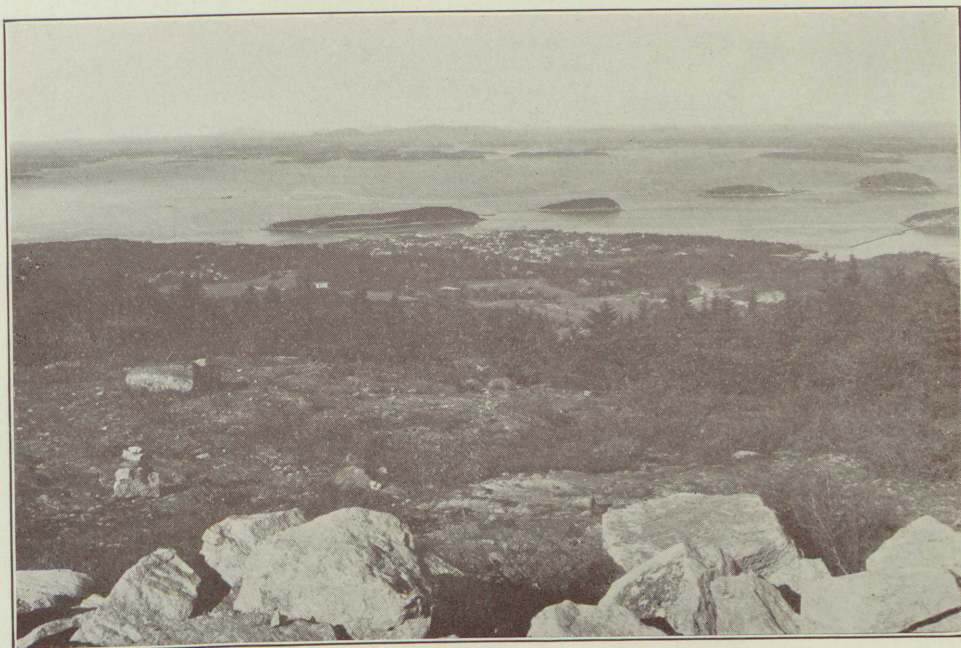
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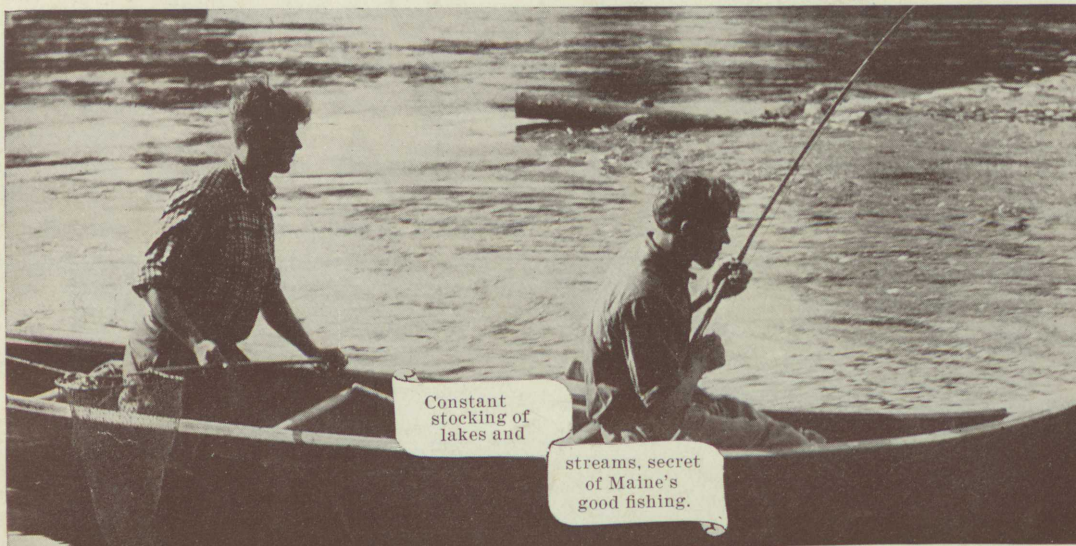
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